

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number
WO 2005/014863 A1

(51) International Patent Classification⁷: **C12Q 01/68**,
C12N 15/01, A61K 39/395, C07K 14/47

Leura Grove, Hawthorn East, Victoria 3123 (AU). DAVY,
Anne [FR/AU]; 76 Stanley Street, North Adelaide, South
Australia 5006 (AU).

(21) International Application Number:
PCT/AU2004/001051

(74) Agent: GRIFFITH HACK; Level 10, 167 Eagle Street,
Brisbane, Queensland 4000 (AU).

(22) International Filing Date: 6 August 2004 (06.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003904154 7 August 2003 (07.08.2003) AU

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(71) Applicant (*for all designated States except US*): BIO-
NOMICS LIMITED [AU/AU]; 31 Dalglish Street,
Thebarton, South Australia 5031 (AU).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): MULLEY, John,
Charles [AU/AU]; 13 Dunkley Avenue, Firlie, South
Australia 5046 (AU). HARKIN, Louise, Anne [AU/AU];
12 Paddington Avenue, Northgate, South Australia 5085
(AU). DIBBENS, Leanne, Michelle [AU/AU]; 14 Trin-
ity Street, College Park, South Australia 5069 (AU).
PHILLIPS, Hilary, Anne [AU/AU]; 10 Witton Road,
Port Noarlunga, South Australia 5167 (AU). HERON,
Sarah, Elizabeth [AU/AU]; 8 Kinnaird Crescent, High-
bury, South Australia 5089 (AU). BERKOVIC, Samuel,
Frank [AU/AU]; 7 Polo Parade, Caulfield North, Victoria
3161 (AU). SCHEFFER, Ingrid, Eileen [AU/AU]; 3

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: MUTATIONS IN ION CHANNELS

(57) Abstract: A method of identifying a subject predisposed to a disorder associated with ion channel dysfunction, comprising ascertaining whether at least one of the genes encoding ion channel subunits in said subject has undergone a mutation event as set forth in one of SEQ ID Numbers: 1-72.

WO 2005/014863 A1